

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A system comprising:
an electrically actuated valve of an internal combustion engine;
a computer storage medium having instructions encoded therein for controlling said electrically actuated valve, said medium comprising:
code for determining a desired valve condition for a cylinder cycle;
code for determining an actual valve condition occurring during said cylinder cycle; and
code for determining an error between said desired valve condition and said actual valve condition for said cylinder cycle; code for triggering said determination of said error during preselected conditions, wherein said triggering code conditions include whether said determined error is greater than a threshold, wherein said threshold varies as a function of engine operating conditions; and
code for adjusting a desired valve condition of a subsequent cylinder cycle based on said determined error.
2. (original) The system of claim 1 further comprising code filtering said determined error.
- 3-5. (cancelled).

6. (currently amended) The system of claim 5 1 wherein said desired valve condition is a desired valve timing.

7. (original) The system of claim 6 wherein said threshold varies as a function of engine speed.

8. (original) The system of claim 7 wherein said threshold further varies as a function of desired valve timing.

9. (original) The system of claim 8 wherein said desired valve timing is a desired valve opening timing, and said threshold varies with said desired valve opening timing.

10. (original) The system of claim 8 wherein said desired valve timing is a desired valve closing timing, and said threshold varies with said desired valve opening timing.

11. (original) The system of claim 8 wherein said determined error is stored in keep alive memory.

12. (currently amended) A system comprising:
an electrically actuated valve of an internal
combustion engine;
a computer storage medium having instructions encoded
therein for controlling said electrically actuated valve, said
medium comprising:
code for determining a desired valve condition
for a cylinder cycle;
code for determining an actual valve condition
occurring during said cylinder cycle;
code for determining an error between said
desired valve condition and said actual valve condition for
said cylinder cycle;
code for adjusting a desired valve condition of a
subsequent cylinder cycle based on said determined error;
and
~~The system of claim 1 further comprising code for~~
storing said error as a function of engine coolant
temperature.

13. (currently amended) The system of claim 12 further
comprising code for storing said error as a function of time
since engine start.

14. (original) The system of claim 1 further comprising
code for storing said error as a function of a number of engine
events from a start of the engine.

15. (currently amended) A system comprising:
a computer storage medium having instructions encoded therein for controlling electric valve actuation of an internal combustion engine, said medium comprising:
code for determining a desired valve condition;
code for reading a sensor measuring said valve conditions;
code for determining an error between said desired valve condition and said measured valve condition;
and
code for storing said determined error in keep alive memory as a function of at least engine coolant temperature, wherein said determined error is used to adjust said desired valve condition.
16. (original) The system of claim 15 further comprising code filtering said determined error.
17. (original) The system of claim 15 further comprising code for triggering said determination of said error during preselected conditions.
18. (original) The system of claim 17 wherein said triggering code conditions include whether said determined error is greater than a threshold.
19. (original) The system of claim 18 wherein said threshold varies as a function of engine operating conditions.

20. (currently amended) A system comprising:
an electrically actuated valve of an internal combustion engine;
a computer storage medium having instructions encoded therein for controlling said electrically actuated valve, said medium comprising:
code for determining a desired valve opening and closing timing for a cylinder cycle;
code for determining an actual valve opening and closing timing occurring during said cylinder cycle;
code for determining a first error between said desired valve opening timing and said actual valve opening timing and a second error between said desired valve closing timing and said actual valve closing timing for said cylinder cycle; ~~and~~
code for adjusting a desired valve opening timing and a desired valve closing timing of a subsequent cylinder cycle based on said first and second determined errors; and
storing said first error as a function of desired valve opening timing and temperature, and storing said second error as a function of desired valve closing timing and temperature.

21. (original) The system of claim 20 further comprising code for triggering said determination of said first and second error during preselected conditions.

22. (original) The system of claim 21 wherein said triggering code conditions include whether a combination of said determined first and second error is greater than a threshold.